Electronic Plan Submittal (EPS) Guidelines

General Information

1) General

- All references to electronic plans in these guidelines are to the electronic files for the structure plans only. Electronic plans for the roadway portion of the project are not a required submittal to OSFP.

- Please note that this information addresses only the electronic submittals and does not negate or eliminate the hard copy submittal requirements that are covered in the OSFP Information and Procedures Guide.

- Submit electronic plans at the Type Selection, Unchecked Details, and at the Initial, Intermediate, and Final PS&E Project Stages.

- Electronic plans must conform to the Electronic Plan formatting standards as defined in the Caltrans' *CADD User's Manual of Instructions* and *Plans Preparation Manual.* These manuals can be viewed and downloaded from the internet web site at: *http://www.dot.ca.gov/hq/esc/oe/project_plans/* or can be purchased from Caltrans Publications Unit at: *http://www.caltrans-opac.ca.gov/publicat.htm*

- The Consultant, at the beginning of a new contract, <u>MUST</u> ensure that the most Current State formatted Plan Sheets (Borders), Files, Manuals, Guides, Cell Library, etc. are used. The most current version can be found on the web at: *http://www.dot.ca.gov/hq/esc/structures_cadd/CADD_Resources/*

- Prepare Electronic Files in a (.dgn) format using Microstation Version 5 through 7. *(Currently we do not permit files saved in Version 8 format.)*

- Prepare electronic plot files in Interplot (Iplot) Version 10. and above. Information on the Interplot software may be obtained at *http://www.bentley.com/products/plotting/products.htm*

- Check the files with Iplot and submit both the dgn and the Iplot files only at the final submittal. A test of the Iplot files can be done for check purposes during the design process.

- Check all Electronic Files for Viruses with the <u>MOST</u> current version of an Anti-Virus program before submitting to OSFP.

2)   **Detailing Notes for Electronic Plans**

- No Custom Lines

- No Tags

- No Rotated Views

- Do not use levels 9, 11, 61, 62, & 63

- Levels 2-8 may be used to show existing features only on the General Plan and the Foundation Plan. To distinguish existing features on other sheets use line code 6 with corresponding levels, weights and colors.

- References Files may be included for all submittals except at the final submittal.

- Must use Structures Leveling Convention

3)   **Submittal Media for Electronic Files**

- The preferred media type is CD-R submitted in a jewel case (plastic CD holder instead of a sleeve envelope).

- CD-RW, Iomega Zip Disk, Iomega Jaz Disk, and/or tapes should **not** be submitted.

- 3 ½" HD floppy disks are acceptable. Use Win-Zip or PK-Zip compression software to span across disks and to minimize the number of disks.

4)   **Identification and Labeling of Media**

The following information is to be shown on the CD and on the jewel case:

- Structure Plans

- District, County, Route(s), Kilometer Post

- Contract No.

- Project Submittal Phase and submittal date
    General Plan
    Unchecked Details
    Initial PS&E
    Intermediate (2nd PS&E, 3rd PS&E, ...)
    Final

- Project is State Advertised (Non State Advertised)

- Submittal Date

- Sponsoring Agency

- Structures Design Consultant (office, address, phone no.)

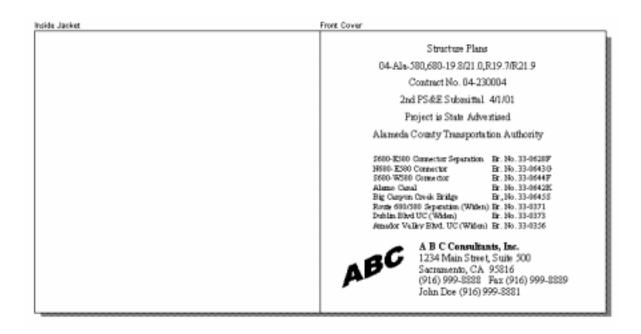- Structures Consultant Project Manager Name and Phone No.

The following additional information is to be shown on the CD and on the jewel case if there is room (if not it is to be shown on the inside cover of the jewel case):
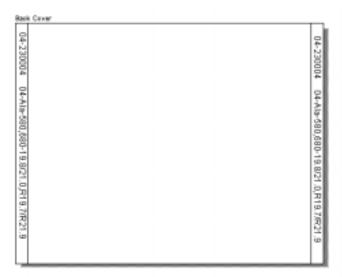
- Bridge Name(s) and Bridge Number(s)

The sample formats for the CD and the jewel case shown below, depict the desired project information and presentation. Fonts and point size have not been specified, however, for general uniformity, the end product should be similar to the sample shown. Company Logos are acceptable within the approximate bounds shown.

Inside Jacket   Front Cover

Structure Plans

04-Ala-580,680-19.8/21.0,R19.7/R21.9

Contract No. 04-230004

2nd PS&E Submittal 4/1/01

Project is State Advertised

Alameda County Transportation Authority

S680-E580 Connector Separation	Br. No. 33-0628F
N580-E580 Connector	Br. No. 33-0643G
S680-W580 Connector	Br. No. 33-0644F
Alamo Canal	Br. No. 33-0642K
Big Canyon Creek Bridge	Br. No. 33-0645S
Route 680/580 Separation (Widen)	Br. No. 33-0371
Dublin Blvd UC (Widen)	Br. No. 33-0373
Amador Valley Blvd. UC (Widen)	Br. No. 33-0356

ABC

A B C Consultants, Inc.
1234 Main Street, Suite 500
Sacramento, CA 95816
(916) 999-8888 Fax (916) 999-8889
John Doe (916) 999-8881

Back Cover

04-230004 04-Ala-580,680-19.8/21.0,R19.7/R21.9

04-230004 04-Ala-580,680-19.8/21.0,R19.7/R21.9

Compact Disc

Structure Plans
04-Ala-580,680-19.8/21.0 ,R19.7/R21.9
Contract No. 04-230004
2nd PS&E Submittal   4/1/01
Project is State Advertised
Alameda County Transportation Authority

ABC **A B C Consultants, Inc.**
1234 Main Street, Suite 500
Sacramento, CA 95816
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Electronic Plan Submittal (EPS) Guidelines

Project Stage Submittal Information

Due to the restrictive standards involved in an Electronic Plan Submittal (EPS) several reviews are required as the project develops. Following is a schedule of the Project Stages where Electronic Plans must be submitted and the type of review that will be performed.

1)   **Project Study Report (PSR) / Advance Planning Study (APS)**

- No Electronic Submittal required

2)   **Type Selection Submittal (35%)**

- Submit an electronic copy of the General Plan with the Type Selection package.

- No quantity list "decal" is required at this stage.

- OSFP review of the EPS will be cursory only.

3)   **Unchecked Details Submittal (65%)**

- Submit an electronic copy of the Unchecked Detail Plans with the Unchecked Details submittal.

- Place a "Quantities" list of contract pay items with pay units on the General Plan Sheet or the next sheet in the set of plans. Quantities do not need to be filled in at this time.

- OSFP review of the EPS will be cursory only.

4)   **Initial PS&E Submittal**

- Submit an electronic copy of the full set of the Checked Detail plans with the PS&E Submittal package.

- Complete the "Quantities" list with <u>quantity estimates</u> for the contract pay items and pay units.

- OSFP will review the EPS for full compliance.

5)   Intermediate PS&E Submittal (2nd PS&E Submittal, 3rd PS&E Submittal, …)

- Submit an electronic copy of a full revised set of electronic plans with the Intermediate PS&E Submittal package.

- OSFP will review the revised set for full compliance.

6)   Final PS&E Submittal (Ready for OSFP approval signatures)

- Submit an electronic copy of the Final Electronic Plans in .dgn and .I file formats with the Final PS&E Package Submittal.

- For State Advertised Jobs, see "Expedite Procedure".

Electronic Plan Submittal (EPS) Guidelines

Expedite Procedure for Consultants at Final Submittal
(For State Advertised Projects)

1)   **Preparing design files for expedite**

- Use this process on every (.dgn) file before submitting a project to OSFP

- All reference files must be active.

    - Copy elements needed from the reference files and then detach all reference files or use the refmerge .ma mdl (Microstation development language) application. (refmerge .ma mdl application is located in Microstation, under utilities/mdl applications)

        - The refmerge .ma mdl application merges a design (active) file and all its reference files into an output file.

        - The output file will have the same name as the original file with an extension of .rcd (record drawing).

    - Choose rename under menu icon to change the extension to the standard .dgn extension and use it as the .dgn file.

- Remove all extraneous data outside border

- Place electronic signatures on plans

- Compress file

- Run "pse=ucm"(user command)

    - "key-in" uc=pse <enter>

- Turn "off" all windows except window 1

- Save plot

    - Select Utilities/Save Views, delete All Saved Views

    - Fit view

- "key-in" sv=plot

- Select view

- Save settings

- (Optional) if construction elements are being used make sure view attributes "construction" is off.

2)   The OSFP liaison engineer will notify the consultant as to when to submit the "Expedite" Electronic Plans which include the following:

- An electronic copy of a final full set of Electronic Plans in .dgn and .I file formats.

- A final full set of plans in paper drawings as specified in the *OSFP Information and Procedures Guide*.

- Drafting Plan Review Check List (This list is found at Appendix 2H of the *PS&E Guide* and is available at *http://www.dot.ca.gov/hq/esc/oe/specs_html/index.html*

3)   The OSFP Liaison Engineer will place his/her signature on the Final Electronic Plans after that submittal is received from the consultant.